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| 10/638,849 | 08/11/2003 | James Xixian Wu | SP-1076.2 US | 4449 |
| 20875 | 7590 | 02/17/2006 | EXAMINER | |
| MICHAEL C. POPHAL EVEREADY BATTERY COMPANY INC 25225 DETROIT ROAD P O BOX 450777 WESTLAKE, OH 44145 | | | CANTELMO, GREGG | |
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| | | | 1745 | |
| DATE MAILED: 02/17/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/638,849

Applicant(s)

WU, JAMES XIXIAN

Examiner

Gregg Cantelmo

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/19/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19, 2005 has been entered.

Response to Amendment

2. In response to the amendments received December 19, 2005:
- a. Claims 1-4 and 6-19 are pending;
 - b. The prior art rejections of record stand.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 2 recites a second seal and thus requires the presence of a first seal (claim 1) adhesive (claim 1) and second seal (claim 2). However the

specification does not appear to support this combination. It may be that Applicant incorporated the limitations of claim 2 into claim 1 without canceling claim 2, and if so should cancel claim 2 since these limitations are already present in claim 1.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites a second seal and thus appears to require the presence of a first seal (claim 1) adhesive (claim 1) and second seal (claim 2).

However the specification does not appear to support this combination. It may be that Applicant incorporated the limitations of claim 2 into claim 1 without canceling claim 2, and if so should cancel claim 2 since these limitations are already present in claim 1.

Clarity is respectfully requested since the exact number of seals present in the claimed invention are not clear in the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-11 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,263,380 (Riedl), of record.

Riedl discloses a non-crimped alkaline electrochemical cell having an adhesive closure comprising: a container 1 having an open end and a side wall, a positive electrode 7, a negative electrode 6, an alkaline electrolyte solution, a cover 4 disposed on the open end of the container and having a peripheral wall extending radially outside of the side wall of container 1 (Fig. 2). An adhesive material 51 is disposed between the sidewall of the container and the peripheral wall of the cover for adhering the cover to the container. Neither the peripheral wall of the cover 4 nor the open end of the container 1 is crimped (Fig. 3 as applied to claim 1). A seal 52 is disposed between the sidewall of the container and the peripheral wall of the cover (Fig. 3 as applied to claims 1 and 2). Note that the seal of claim 2 and that of amended claim 1 are held to be the same seal element in light of the supported disclosure related to the seal in the instant application.

Riedl discloses a non-crimped alkaline electrochemical cell having an adhesive closure comprising: a container 1 having an open end and a side wall, a positive electrode 7, a negative electrode 6, an alkaline electrolyte solution, a cover 4 disposed on the open end of the container (Fig. 2). A first adhesive material 51 is disposed between the sidewall of the container and the peripheral wall of the cover for adhering the cover to the container. A second adhesive material 52 is disposed between the side wall of the container and the peripheral wall of the cover (Fig. 3, col. 4, ll. 32-59 and col. 5, ll. 34-44 as applied to claim 3).

First adhesive 51 is closer to the open end of the container 1 and the second adhesive 52 is located further away from the open end of the container (Fig. 3 as applied to claim 4).

The cover seals the upper surface of the can and therefore inherently comprises a seal (Figs. 2 and 3 as applied to claim 6).

The cover 4 disposed on the open end of the container and having a peripheral wall located on the outer surface of the container 1 (Fig. 2 as applied to claim 7).

The can or container is a metal container (col. 1, ll. 10-15 as applied to claims 8 and 9).

Riedl discloses a non-crimped alkaline electrochemical cell having an adhesive closure comprising: a container 1 having an open end and a side wall, a positive electrode 7, a negative electrode 6, an alkaline electrolyte solution, a cover 4 disposed on the open end of the container and having a peripheral wall extending radially outside of the side wall of container 1 (Fig. 2). A first sealing material 52 is disposed between the sidewall of the container and the peripheral wall of the cover for adhering the cover to the container. A second seal 51 is disposed between the sidewall of the container and the peripheral wall of the cover (Fig. 3 as applied to claim 10).

Neither the peripheral wall of the cover 4 nor the open end of the container 1 is crimped (Fig. 3 as applied to claim 11).

The adhesive layer 51 comprises at least one adhesive (as applied to claim 14).

The adhesive and seal are different materials (col. 5, ll. 40-44 as applied to claim 15).

The can, container and cover are metal (col. 1, ll. 10-15 as applied to claims 16-18).

The cover 4 has a peripheral wall which extends outside the side wall of the container 1 and at least some of the first and second sealing materials 51 and 52 are disposed between the side wall of the container and peripheral wall of the cover (Fig. 3 as applied to claim 19).

Response to Arguments

6. Applicant's arguments filed December 19, 2005 have been fully considered but they are not persuasive.

With respect to the arguments to the cover of Riedl:

Applicant argues that the cover of Riedl is component 2 and not cap 4. However it should be evident that the claims fail to impart sufficient structural differentiation between the claimed cover and element 4 relied upon by the Examiner as the cover. It should further be evident that component 4 of Riedl in fact functions as a covering element and therefore can reasonably be applied as the cover component described in the claims.

With respect to the crimped/non-crimped arguments:

The Examiner disagrees with Applicant's interpretation of the prior art of Riedl as to the issue of a crimped or non-crimped structure.

The Examiner does agree that Riedl discloses only a crimped structure as recited in column 5 of Riedl as described with respect to Fig. 5 of Riedl. First, Applicant fails to recognize that Riedl discloses that the arrangement can be bent or crimped. And thus

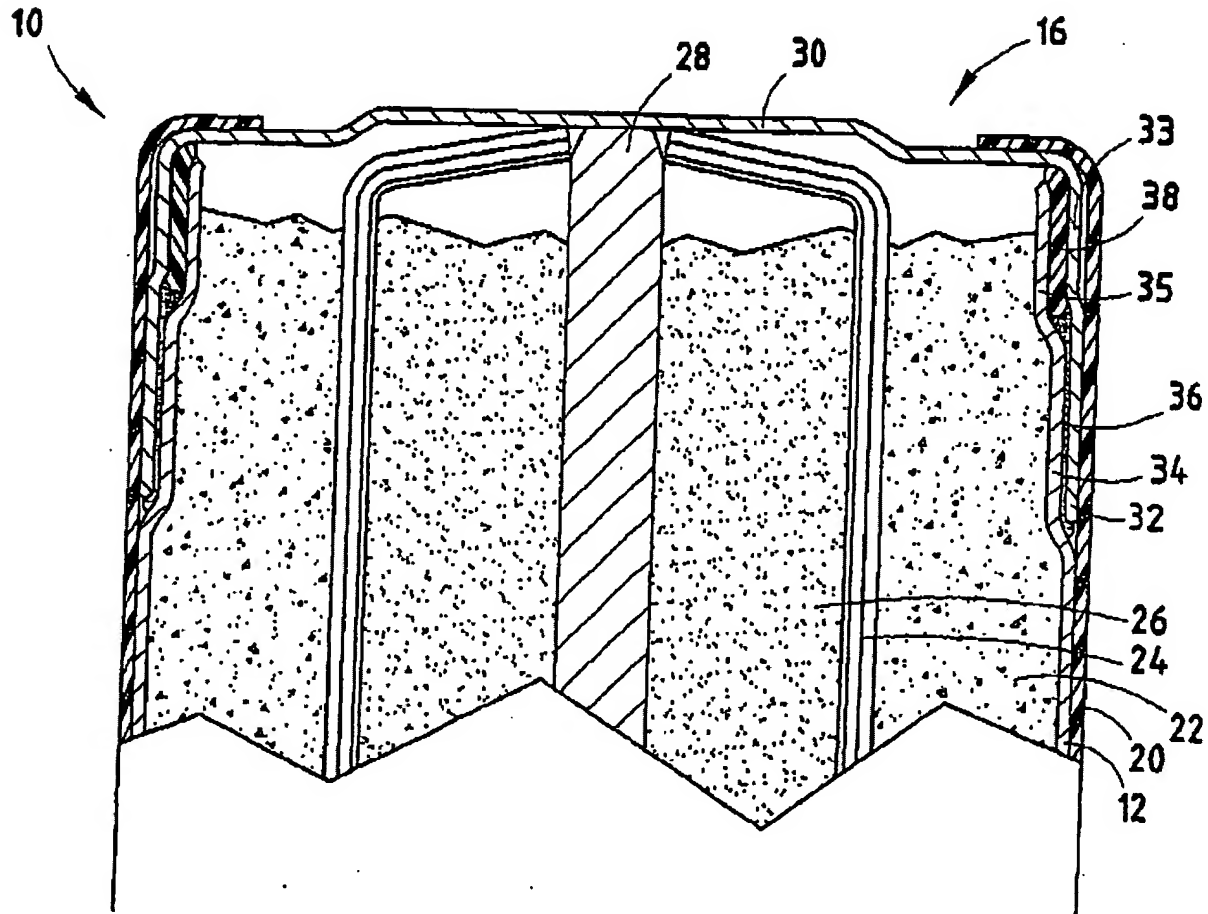
the features shown in the figures, which appear to be identical in shape and design relative to the cover and sidewall is exemplary of, if anything, a bent relationship, as opposed to a crimped relationship. Second, the claimed invention does not preclude a bending of the claimed elements as opposed to crimping. This is additionally evident from Fig. 1 of the instant application which clearly shows a bending of the cover in relation to the sidewall and thus exemplary of a bent arrangement and not crimping. Third, the bending or crimping disclosed in Riedl are relative to the arrangement in Fig. 5 and is not described or applied to the alternative embodiments shown in Figs. 2 and 3. Also as stated in the previous office action:

Applicant's own disclosure of to Fig. 1 shows that the cover 30 which is cup-shaped having bent edges is placed in a sealing arrangement with the container. The disclosure of Riedl is identical to this arrangement as claimed (discussed above). A complete review of the original disclosure of the instant application reveals that Applicant's own disclosure recognizes this arrangement to be exemplary of a non-crimped design (see Fig. 1 and paragraph bridging pages 6 and 7 of the instant Applications own disclosure).

The Examiner has appreciated the references cited in attempt to support Applicant's arguments but considering these arguments are not commensurate with the original disclosure's teachings of what constitutes a non-crimped design between the cover and container.

Provided herein is a side-by-side comparison between Fig. 1 of the instant application, an admitted embodiment of a non-crimped arrangement between the cover and container of a battery and Fig. 3 of Riedl.

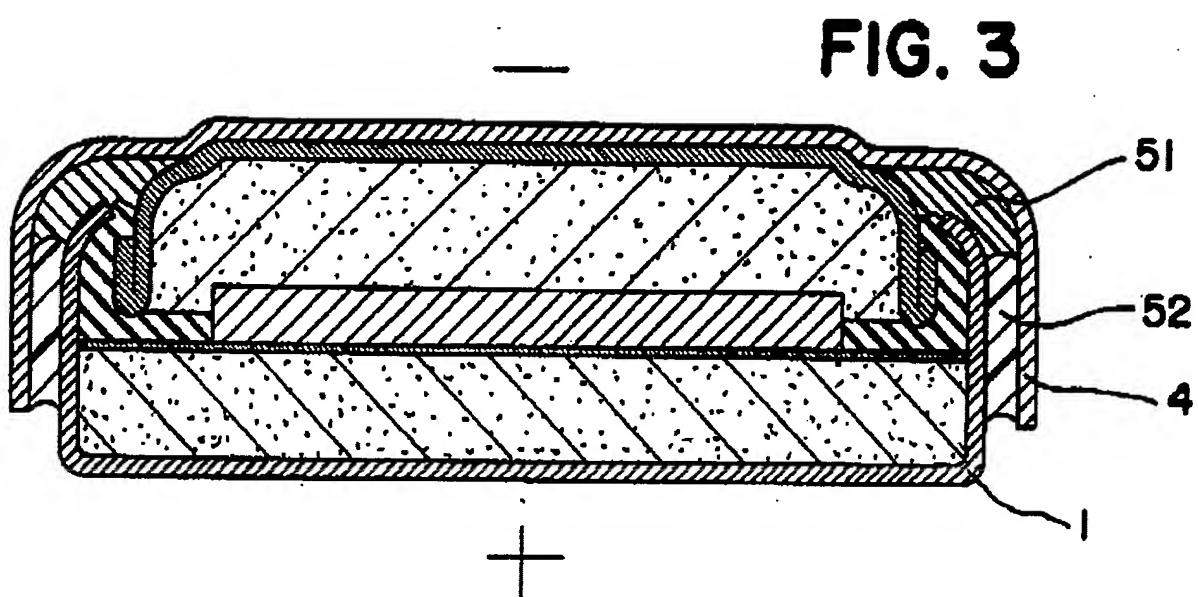
FIG. 1 OF THE INSTANT APPLICATION



In Fig. 1 of the instant application, reference character 30 corresponds to the cover and 12 to the container. As described in the paragraph bridging pages 6 and 7 of

the instant application, this arrangement is a non-crimped arrangement between the cover 30 and container 12.

FIG. 3 of RIEDL



In Fig. 3 of Riedl, reference character 4 corresponds to the cover and 1 to the container. This arrangement, structurally identical to the cover and container arrangement with respect to the claimed invention is also understood to be non-crimped arrangement between the cover 4 and container 1.

It should be apparent for the reasons set forth above, and from the analysis of the corresponding figures below, that the prior art in fact anticipates the non-crimped structure. Therefore the rejection stands.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riedl in view of U.S. Patent No. 4,725,515 (Jurca).

Riedl discloses a non-crimped alkaline electrochemical cell having an adhesive closure comprising: a container 1 having an open end and a side wall, a positive electrode 7, a negative electrode 6, an alkaline electrolyte solution, a cover 4 disposed on the open end of the container and having a peripheral wall extending radially outside of the side wall of container 1 (Fig. 2). A first sealing material 3 is disposed between the electrolyte in the container and adhesive 51 for sealing purposes. A second seal 51 is disposed between the sidewall of the container and the peripheral wall of the cover for adhesive purposes (Figs. 3-5 as applied to claim 11). The first seal 3 is recognized to be a thermoplastic seal (col. 4, ll. 45-47). The second seal 51 is an adhesive.

The difference between claims 12 and 13 and Riedl is that Riedl does not teach of disposing the seal 3 between the cover and the container.

Riedl teaches numerous configurations for seal 3 and adhesive 51 (see Figs. 2-5).

The exact placement of the seal in Riedl compared to that of claims 12 and 13 is not held to be a critical difference. The prior art of Riedl teaches of the need to place both a seal and adhesive in an alkaline cell much the same way as the instant application does, notably that the seal is disposed closer to the electrochemical cell components than the adhesive. This provides both the sealing and adhesion properties required by Riedl. Furthermore the Riedl varies the shape and placement of both the seal 3 and adhesive 51 and, for example in Fig. 5 shows a configuration where the seal is provided adjacent to the cell wall and adhesive. Further extending the seal such that it is disposed over the cell container and on the sidewall of the cell container between the cover and cell would have improved the sealing of the cell. See the various figures of Jurca which show a seal which overlaps the edge of the container.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Riedl by extending the seal 3 onto the sidewall between the sidewall and cover since it would have improved the sealing of the cell.

Response to Arguments

10. Applicant's arguments with respect to claims 12 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. FAXES received after 4 p.m. will not be processed until the following business day. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo
Primary Examiner
Art Unit 1745

gc



February 13, 2006